

NEW ROBBER FLIES FROM MADAGASCAR.
(Diptera, Asilidae.)

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The following new species were in a collection obtained from Prof. Charles Lamberton, Academie Malgache, Tananarive, Madagascar.

The types of the species described are in the writer's collection.

DASYPOGONINAE.

Microstylum Macquart.

This genus is abundant in Madagascar and in the material at hand were discovered 5 new species.

***Microstylum cinctum* n. sp.**

Length, 34 to 44 mm. (exclusive of the rostrum which is 3.5 to 5 mm. in length). A large, handsome species with the wings extending nearly to or in some cases surpassing the length of the abdomen. The species is largely black with a band of yellow pile near the base of the abdomen. The femora black and the tarsi and tibiae reddish.

Female. Antennae, palpi, rostrum and eyes black. Mystax composed of golden yellow bristles confined to the oral margin with a few small, fine, black hairs intermingled. Palpal hairs reddish gold toward the tip, yellowish at the base. A few black hairs intermingled towards the tip of the palpi. Hairs on antennae and vertex black, on occiput golden. Beard thick, golden yellow. Face golden pruinose. Thorax black with a brownish bloom. Hairs on pronotum and anterior portion of thorax blackish. On the posterior portion of the mesonotum, these are intermingled with fine, golden hairs. Scutellum with fine golden hairs and bristles. Coxae with long golden pile. The posterior coxa with a few black hairs. Hairs in front of the wings black; under wings golden. Wings dark brown with a purplish tinge. Halteres pale yellowish brown. Femora black with black hairs. A few yellowish brown bristles on the posterior femora. Tibiae reddish with reddish gold hairs and bristles. The anterior tibia is darker on the inner distal portion. The middle tibia has several stout, reddish spines at the ventral apex, but no enlarged tubercle. The tarsi are reddish with reddish bristles.

The unguis are black at the tips, reddish at the base. The pulvilli are pale brownish yellow. The abdomen is black with a light pollinose band around the middle of the second segment. This band bears long, golden pile. Similar colored pile occurs in lesser quantities on the first segment; the first four segments are velvety black, having very fine short, dark hairs; the succeeding segments are black, shiny. The ovipositor is black with black bristles and fine black hairs.

Holotype.—♀, Tananarive, Madagascar. 4 *Paratopotypes*. ♀♀.

***Microstylum lambertoni* n. sp.**

Length, 40 to 47 mm. (exclusive of the rostrum which is 4 mm. in length). A large, black species with the thorax and a large part of the abdomen covered with a grayish "bloom" and fine, grayish yellow pile. The beard is golden, the wings almost hyaline with a black costal border. The femora and most of the tibiae reddish; the tarsi and tips of the tibiae black.

Female. Eyes, palpi, rostrum black. The antennae are broken, but the first two segments which remain are black with blackish bristles. The face is silvery pruinose. The hairs on the vertex are black. The occiput is thickly beset with pale golden hairs. The beard is thick and composed of similarly colored hairs. The palpal hairs are mostly black with some pale hairs intermingled. The mystax is composed of black bristles and white bristles. In one specimen the black predominates; in the other white. Thorax black with a bluish gray bloom. Hairs on lateral portion of the cervical region thick golden. Coxae with long, white pile. Fine hairs of mesonotum black, with longer yellow ones on the posterior portion and on the scutellum. Wings very light brownish, nearly hyaline, with the costal border blackish. Halteres dark brown. Femora reddish with short, fine, black and whitish or yellowish hairs intermingled. Tibiae reddish, darker, almost black, toward the extreme tip, thickly set with black hairs and bristles. The tibiae are slightly enlarged towards the tip, and the hairs become more thickly set in the distal portion also. The ventral apex of the middle tibiae bears several stout spurs, but there is no enlarged tubercle. The tarsi are large and broad, thickly covered with black hairs and bristles. The unguis are black and the pulvilli yellowish. The abdomen is black. The first four segments covered with a thin, grayish bloom, while the remainder are shining black. The lateral anterior portions of the third and

fourth segments are shiny black also. The venter of the abdomen bears fine pile out to the very tip, while the sides of the first two and the dorsum of a band on the second bears quite thick, white pile. The ovipositor is shining black with black bristles.

Holotype.—♀, Tananarive, Madagascar. 1 *Paratopotype*. ♀.

***Microstylum lucifer* n. sp.**

Length 33 mm. (exclusive of the rostrum which is 6 mm. in length). A slender, black species with two reddish lines on the dorsum of the thorax, an extremely long, black rostrum, and the face, vertex and occiput, golden pruinose. The wings black with a yellowish area medio-basally.

Female. Rostrum, eyes, palpi, antennae black. Base of palpi somewhat yellowish. Face, vertex and sides of occiput golden. The upper portion of the occiput back of the upper portion of each eye without this bloom, giving the appearance of two black spots. Vestiture of head black. Thorax black, vestiture black. On each side of the mesonotum is a reddish line, extending from the humeral callus backward to three-fourths the length of the mesonotum. There is a reddish spot in the humeral callus and dorsally at the base of the wing is another very pale area. The legs are black with black bristles, the pulvilli yellowish brown, the middle tibiae bear three stout, black spines, ventrally at the apex. Halteres black; wings black with a yellowish area medio-basally. Abdomen black. First three segments dull black, the remainder shiny black. The ovipositor black with black spines.

Holotype.—♀, Tananarive, Madagascar.

***Microstylum umbrosum* n. sp.**

Length, 25 to 32 mm. A black species with the mesonotum brownish pollinose. Four anterior tibiae and tarsi brownish and the wings yellowish brown in the male, whitish towards the base.

Male. Head and vestiture black. The third joints of the antennae are missing. Vertex and face deep bronze pruinose. Occiput reddish brown pruinose. Thorax deep black; vestiture black. Mesonotum brownish pruinose with two median lines where the pruinosity appears lighter. Femora black, the extreme tip of the anterior femora yellowish. The four anterior tibiae and tarsi yellowish with black bristles, and some fine yellowish hairs. The middle tibiae has a decided spur-like tubercle which bears two very short, black spurs.

The posterior tibiae and tarsi are reddish brown, with black hairs and bristles. The ungues are black, yellowish at the base, the pulvilli yellowish brown. Wings brown distally with brown veins, the basal half whitish. Halteres pale yellowish brown. Abdomen black. Third and fourth segments brownish pollinose, remaining segments shiny black. Genitalia black with blackish and pale reddish hairs intermingled.

Female. Similar, but the tarsi and tibiae more reddish. The mesonotum is more broadly brownish pruinose with a mid-dorsal blackish line. The wings are light reddish, brown, becoming darker towards the tips. The abdomen is black. The first three segments blackish pollinose and the remainder shiny black. The sixth and seventh especially shining, and the eighth segment is deep reddish with reddish and black hairs intermingled. The spines on the ovipositor piceous.

Holotype.—♂, Tananarive, Madagascar. *Allotopotype* ♀. *Paratopotype* 5 ♀♀.

***Microstylum tananarivensis* n. sp.**

Length, 25 to 31 mm. (exclusive of rostrum, which is 2.5 mm. in length). A slender, reddish species with abdomen extending beyond the wings when folded, the thorax with three broad dark lines, the median divided by a narrow, light-colored line, and the legs reddish yellow with darker lines on the anterior portions of the femora and tibiae.

Male. Rostrum black above, reddish beneath. All vestiture of the head pale yellow, that of the vertex with a more reddish tint. Occiput, vertex and face pale yellow pruinose. Palpi reddish-yellow. Antennae reddish-yellow, third segment darkest. Vestiture of thorax and coxae yellowish, the bristles on the posterior portion of mesonotum and on scutellum pale reddish. Pleura pale yellow pruinose. Dorsum pale reddish-yellow pruinose. Three broad black lines on disc of mesonotum, the median divided into two by a very thin, pale yellow line. Wings light brown; halteres yellowish-brown. Legs light reddish-yellow with concolorous hairs and bristles. The front and middle femora have a blackish line on the anterior portion. The posterior femora is darker distally. Ungues black with bases reddish-yellow. Pulvilli reddish-yellow. Abdomen reddish-yellow with minute, concolorous hairs. A few bristles on the sides of the first segment, the same color. The anterior portion of the first segment is darker, nearly black. The genitalia from about the same width as the seventh segment, reddish with lighter hairs.

Female. Differs in the following respects: wings are lighter; the posterior femora has a dark anterior line similar

to that on the first and second, while all the tibiae are darker on the anterior portion, and the abdomen bears blackish spots along the sides. The ovipositor is reddish dorsally, black laterally, spines reddish-brown.

Holotype.—♂, Tananarive. *Allotopotype* ♀. *Paratopotypes* 4 ♂♂; 9 ♀♀.

LAPHRIINAE.

Laphria Meigen.

One species is placed here on the basis of the venation and the structure of the palpi and the ovipositor. The species approaches both *Andrenosoma* Rondani and *Nusa* Walker (*Dasythrix* Loew) in that the thoracic markings resemble those of the first, while the habitus in general is suggestive of the latter. The proboscis is not truncate as in typical *Laphria*, but is slightly pointed in profile as in *Andrenosoma*, not, however, upturned at the tip as is common in that genus. On the contrary, it is very slightly downturned as in *Nusa*. Not wishing to propose a new genus until a further study of relationships may be made, I have referred it to the common repository for species of this sub-family—the genus *Laphria*.

Laphria nusoides n. sp.

Length, 11 to 18 mm. A dark, metallic blue species with coxae and lower pleura whitish pruinose; wings nearly hyaline, smoky at the tips; face and spots on mesonotum yellowish-brown pruinose.

Male. Head black. Antennal bristles, those of vertex, occiput and mystax black. Face and bristles below antennae and those on upper portions of mystax golden. Beard, palpal hairs and some of the bristles of the mystax near the base of the palpi nearly white. Antennae black, the third segment somewhat longer than the first two together. Thorax blue-black. Mesonotum with two small, pale yellow, pruinose spots on the wing and the posterior margin with a golden-brown line. Hairs on dorsum, fine, black. Scutellum blue-black with black hairs and four or five black bristles on margin directed backwards. Wings hyaline, smoky towards tips, the first posterior cell open. Halteres pale brown. Legs blue-black with whitish hairs and a few black bristles. Abdomen blue-black, linear, gradually pointed toward tip. Genitalia from above narrower than seventh segment; very suggestive of *Andrenosoma*. The posterior lateral margins of the abdominal segments bear small whitish pruinose spots. There

is a small amount of fine white, scattered pile along the sides. Genitalia blue-black with black hairs, a few fine white hairs toward the tip.

Female. Similar. Ovipositor short as in *Laphria*. Black hairs at tip.

Holotype.—♂, Tananarive. *Allotopotype* ♀. *Paratopotypes* 2 ♂♂.

ASILINAE.

Promachus Loew.

Promachus lemur n. sp.

Length, 25 to 29 mm. A black species with black legs; the thorax pale grayish-yellow pruinose with a broad velvety black median line, widening anteriorly, and two large spots on each side, on the mesonotum. There is an area of long, pale pile on the sides of the first three abdominal segments.

Male. Rostrum, palpi, antennae (third segment missing), hairs of vertex, occiput, antennae, palpi and upper portion of mystax black. Face and occiput, pale yellow-gray pollinose. Beard and most of mystax pale yellowish, mystax more golden. Thorax black with markings as described above. Hairs and bristles of dorsum black. A tuft of golden hairs below and in back of base of wings and a patch of black bristles below this tuft. Wings light brown; a large dark shadow in the first submarginal cell. Halteres pale yellowish-brown. Scutellum yellowish pruinose with pale, yellow, up-turned hairs and a few black bristles at margin. Front coxae with yellowish bristles, second with black and yellow intermingled and third with mostly black. Legs black, with scattered yellowish hairs and black bristles. Ungues black, pulvilli yellowish. First four segments of front tarsi with short, thick silvery pile above. Abdomen black with a tuft of black bristles on the sides of the first segment. There is a patch of long whitish pile on the sides of the first three segments. Genitalia rather small and narrow for a *Promachus*, black with black hairs.

Female. Similar in coloration, but lacking the silvery hairs on the front tarsi. Segments six to eight laterally compressed to form the ovipositor.

Holotype.—♂, Tananarive. *Allotopotype* ♀. *Paratopotype* ♀.

Promachus clavigerus n. sp.

Length, 28 to 31 mm. A whitish pruinose species with hyaline wings. A faint shadow in the first sub-marginal cell.

The legs with femora black and tibiae reddish with short, fine, whitish pubescence. The genitalia broader than any segment of the abdomen, except the first.

Male. Antennae black with fine, black bristles. Palpi black with black hairs at tip, whitish at base. A few bristles on the occiput blackish; rest of head thickly covered with fine, pale hair. The beard whitish, the hairs of the mystax with a pale yellowish tint. Thorax whitish pollinose on sides, pale yellowish pollinose above. Vestiture whitish, except the fine black hairs and some of the bristles on the dorsum black. Scutellum with whitish bristles and hairs. Two brownish median lines and two lateral spots of the same color on the mesonotum. Humeral callus reddish-brown. Legs covered with fine, white pubescence. Bristles black. Femora black with the posterior portion of the first and the base of the last reddish. Tibiae reddish, blackish towards the tips. Tarsi black with black bristles. The anterior thickly covered with fine, yellowish-white hairs above. Ungues black. Pulvilli pale yellowish-brown. Abdomen black, thickly, pale yellowish pruinose, except the seventh segment. Fine hairs along the sides and on the first segment whitish. The sixth and seventh segments bear black appressed hairs on the sides and there are similarly colored hairs at the extreme margin of the sides of the fifth segment, the seventh segment and genitalia velvety black with blackish hairs on the sides and basal portion of the latter, but the tips of the claspers with long, fine, thickly set, white pile.

Female. Female similar in color, except the middle femora bears a reddish line posteriorly. The abdomen long and slender, projecting a considerable distance beyond the wings; the ovipositor is only slightly compressed.

Holotype.—♂, Tananarive. *Allotopotype* ♀. *Paratopotype* ♂.

Promachus parvus n. sp.

Length, 17 to 21 mm. A small, pale brownish pollinose species with hyaline wings, slender, elongate abdomen and reddish legs.

Female. Vestiture of head whitish, except mystax which is pale straw-colored. A few bristles on the vertex, occiput are blackish and the palpal hairs are blackish. Antennae, proboscis, palpi black. Thorax pale brown pollinose above. Whitish pollinose on the sides. Mesonotum with a broad median line, and two lateral blackish spots on each side. Humeral callus reddish. Vestiture of thorax mostly white with

a few fine black hairs and black bristles on the dorsum. Posterior calli reddish, but covered with a pale brownish pollen. Scutellum black, pale brownish pollinose. White bristles at the margin. Wings hyaline, a very faint shadow, merely a streak, in the sub-marginal cell. Halteres very pale brownish. Veins black, yellowish at their bases. Legs reddish with fine white pubescence, and black bristles. Tarsi black, middle femora black on the upper side. Posterior femora and tibiae blackish towards their tips. Ungues black. Pulvilli pale yellowish. Abdomen pale brownish pollinose with brownish dorsal triangular streaks and lateral spots on the second, third and fourth segments. The remaining segments narrower, blackish.

Holotype.—♀, Tananarive. *Paratopotype* 4 ♀♀.

Heligmoneura Bigot.

One species is referred to this genus.

***Heligmoneura medianus* n. sp.**

Total length, 13 to 18 mm. A bare slender, pale yellowish, gray pollinose species with a broad velvety, black median line on the dorsum of the thorax, and three small black spots on each side.

Male. Antennae brownish, third segment, occipital bristles brownish. Mystax whitish with two or three darker bristles, thin, confined to the slight prominence on oral margin. Palpi very small, blackish with pale hairs. Head pale yellowish, white pollinose. Thorax pale yellowish pollinose above, white pollinose on sides. Posterior portion of mesonotum and margin of scutellum with a few black bristles, the latter with two. Coxae with white hairs. Mesonotum with broad black median line and three small blackish spots on each side. Wings hyaline, pale yellowish toward tips. Legs yellow with pale hairs and black bristles. Tarsi darker, a spot on the median upper portion of the femora, and the apices of the second and third femora and tibiae blackish. Ungues black, brownish at base. Abdomen black, pale brownish pollinose, posterior margins of the segments paler. Genitalia black, very slightly wider than seventh segment from above.

Female. Similar, ovipositor black, shorter than seventh segment, the oviduct slender resembling a short spine.

Holotype.—♂, Tananarive. *Allotopotype* ♀. *Paratopotypes* 4 ♂♂, 3 ♀♀.